EDISON ELECTRIC INSTITUTE

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via e-mail

Carl Peterson
Illinois Commerce Commission
Cpeterso@icc.state.il.us

Re: Responses of the Edison Electric Institute to the Questions of Commissioner Harvill, as Chairman of the ICC Electric Policy Committee, on Distributed Resources

Dear Mr. Peterson:

The Edison Electric Institute ("EEI"), the national trade association of the investor-owned electric utility industry, hereby respectfully submits the following responses to the questions from Commissioner Terry S. Harvill on distributed resources, which you provided to EEI via e-mail on October 26. A super-majority of EEI's members establish EEI's policies with respect to competitiveness and restructuring issues, although some members may not be in full agreement with all of those policies at all times.

1. A Distributed Resource ("DR") is any electrical energy source that can provide electricity to consumers, and may be connected to the distribution system. The term DR is used instead of Distributed Generation because DR takes into account batteries and energy storage devices. Although demand-side management ("DSM") deals with electric and gas end-use, and not electricity production, it could be included in a definition of DR. For purposes of these comments, however, EEI will only address DR as electricity production and storage. Size limitation for DR is relative to its application and the voltage level of the distribution circuit to which it will be connected; however, in general, for most distribution systems, DR would be smaller than 10 MW.

The environmental impacts of DR are very site specific. In some cases, DR may produce more emissions than central station power plants due to the lower heat rate of some types of DR systems and some DR systems use diesel fuel. In other cases, however, DR may produce fewer emissions than central station generation. Widespread deployment of DR systems in urban non-attainment air quality areas may pose special environmental concerns.

The unique features of many currently deployed DR applications are significant. The Department of Defense's installations were subsidized by the Department of Energy. In California, many DR installations have been subsidized by state funds. Other installations are done for operational reliability reasons. Still further installations are prototype units, installed at little or no cost to the customer, but providing "real world" performance data to the manufacturer and/or vendor.

DR may also be a cost-effective substitute for enhancements the utility needs to make to the grid. It may also provide end users with a lower cost option to meeting their demand during expensive peak periods.

3. The Commission should ensure that unnecessary obstacles to the deployment of DR are removed, but should avoid the temptation to create targeted regulatory incentives to deploy DR. The goal should be to let market forces operate and establish a policy of regulatory neutrality. This would ensure that DR is deployed only where it is cost-effective.

The Commission should address interconnection standards only if efforts to develop them in competitive markets fail. The IEEE is working on this and EEI supports the IEEE process. The IEEE may take two years to finish its work on interconnection standards and the Commission must also determine whether interim, market-determined standards are needed.

Additionally, greater uniformity in interconnection-related tariffs may be desirable. This uniformity may reduce costs for DR vendors and may reduce costs for utilities that need to develop updated tariffs. Uniform interconnections tariffs may also reduce customer confusion. Nevertheless, it is appropriate for the costs of interconnection to vary among utilities

Accurate rates are critical to the emerging competition between state-of-the-art central station and DR facilities. The Commission should observe three principles in order to assure accurate distribution rates:

1. Distribution service must be offered on a non-discriminatory basis;

2. Cost shifting among customers, and between customer classes, should be minimized; and

3. Unbundled distribution rates should encourage efficient use of existing distribution facilities and encourage efficient investment in new distribution capacity.

To the extent unbundled distribution rates continue to reflect the use of volumetric (kWh-based) billing determinants, customers who install DR facilities will be allowed to shift costs to other customers who do not do so and/or to utility shareholders. Therefore, the Commission should disfavor volumetric unbundled distribution rates.

The use of net metering policies creates subsidies for DR customers by, in effect, shifting costs to other customers and/or to utility shareholders.

Net metering does not keep the incumbent whole for transmission and distribution costs or for the on-peak value of energy. Rather, net metering shifts these costs to other customers and/or utility shareholders and, thereby, skews the price signals that customers receive, encouraging applications that are not efficient.

In order to facilitate the cost-effective deployment of DR, the Commission should make greater used of fixed customer charges and avoid "net metering," at least as traditionally practiced. In principle, it is possible to net meter without shifting costs, but more sophisticated meters and real time or time-of-use pricing (or a market price) are needed.

Additionally, standby tariffs may need to be updated. Many standby tariff designs make use of probabilities (e.g., that a generator will be off-line during system peak) that are derived from generator performance data. These existing standby tariffs may not reflect the performance of current DR technologies.

Since DR is a substitute for both distribution and generation service, the rate formulas in distribution tariffs will play a critical role in the evaluation of whether DR is appropriate. Thus, the Commission should examine distribution tariffs to ensure that they promote efficient installation of DR and discourage inefficient installation of DR. Ideal distribution tariffs have two parts, where one part recovers fixed capacity costs of the grid, while the other recovers the costs that vary with usage. Tariffs for back-up and stand-by distribution service also need to ensure that customers considering using DR as a primary energy source factor these costs into their analyses.

EEI commends the Commission for recognizing that, as DR's deployment increases, there will be a need to dispatch and control the impact of DR on the distribution system. Utilities are developing models that will predict the impact that DR will have on the distribution system. EEI encourages the Commission to support continued research to help all players to fully understand the impacts of DR.

Central dispatch raises additional issues for the Commission to consider, including:

- Who will control the dispatch of DR? Because the distribution company is responsible for the distribution system, it should control dispatch.

- What determinants will be used to control DR? The dispatching utility should have complete control to connect and disconnect DR units as needed. The objectives should be to keep the system operating in a safe and stable manner and provide for the dispatch of energy as it is needed on the system.

Central dispatch of DR for each distribution system is most likely going to be different due to the unique configurations of each system. This will also increase the cost of installing each DR unit.

Regulatory policy should neither promote nor discourage DR. Since the objective of restructuring is enhanced efficiency and lower prices that naturally result from competitive markets, the Commission should not take any action that could alter the market's natural development. Policies that actively promote DR could saddle Illinois with DR installations that result in all customers paying more for power than they should. Moreover, such policies could encourage the construction of DR in inappropriate locations, thereby decreasing grid reliability. On the other

hand, policies that discourage DR could preclude the installation of beneficial DR that could lower the cost of power supply and increase grid reliability.

DR installations should clearly have to meet technical and safety standards. These standards will be necessary to ensure that utility crews can safely handle downed power lines or undertake other remedial measures during emergencies. Failure of a local DR operator to adhere to standards could seriously injure a lineman who may be unable to know whether a line is energized by a local DR.

5. Because of how quickly the DR technologies have advanced recently, most utilities have not considered DR as a tool to use in solving distribution planning problems. As utilities test different DR technologies on their distribution systems and develop a understanding of their operating characteristics, they will begin to deploy them as solutions to distribution problems.

Problematic areas will be hard to predict, because each distribution system is unique. It may be easier be predict problems based on the amount (total kW) and particular types of DR connected to the system.

6. The use of volumetric billing determinants creates a disincentive for utilities to deploy or interconnect DR.

9. DR will compete directly with the electric utility for the delivery of power. If a customer takes gas service and uses that gas to generate electricity, there is no need for electric service. Large penetration of DR could, therefore, effect the price of gas.

If you have any questions regarding these responses, please contact me by phone at 202-508-5626 or by e-mail to jwilliams@eei.org. Thank you for the opportunity to submit these responses. EEI looks forward to continuing to work with Commissioner Harvill and the Electric Policy Committee of the Illinois Commerce Commission in this important initiative.

Respectfully submitted,

/s/

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